

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1203	361/23	US-PGPUB; USPAT	OR	OFF	2006/07/13 07:27
S2	317	S1 and (converter)	US-PGPUB; USPAT	OR	OFF	2006/01/27 12:30
S3	12160	(ac adj voltage) same (dc adj voltage)	US-PGPUB; USPAT	OR	OFF	2006/01/27 12:30
S4	2099	S3 same (converter)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:21
S5	41	S4 same (DC adj link)	US-PGPUB; USPAT	OR	OFF	2006/01/27 12:31
S6	588	S4 same (inverter inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:21
S7	41	S5 same (DC adj link)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:21
S8	1958	S3 same (inverter inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:21
S9	588	S8 same (converter)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:21
S10	25	S9 same (DC adj link)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:22
S11	0	S10 not S7	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:22
S12	408991	inverter converter	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:22
S13	6382	S12 same (motors (plurality with motors))	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:23
S14	6382	S12 same (motors)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:23
S15	60	S14 same (ac adj voltage) same (dc adj voltage)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:35
S16	4855	(inverter inverters) same (contactor contactors switch switches) same (motor motors)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:36
S17	196	(inverters) same (contactors switches) same ( motors)	US-PGPUB; USPAT	OR	OFF	2006/01/27 13:36
S18	93	S17 same (ac dc)	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:35
S19	2211	(variable adj speed adj drive) with motor	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:39
S20	10	S19 and (h-bridge)	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:46

## EAST Search History

S21	12	S19 with (chiller)	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:47
S22	12	S21 and motor	US-PGPUB; USPAT	OR	OFF	2006/01/27 15:18
S23	6	S22 and converter	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:51
S24	4	S23 and (inverter)	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:47
S25	4	S24 and (rectifier)	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:49
S26	0	S25 and ((load\$1 adj contactor) or (circuit adj breaker) or (trip))	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:48
S27	0	S25 and ((contactor) or (circuit adj breaker) or (trip))	US-PGPUB; USPAT	OR	OFF	2006/01/27 14:49
S28	318	(motors loads) same (contactors switches) same (inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/27 16:08
S29	1	("20030123989").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/27 16:05
S30	4	(motors) same (contactors) same (inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/27 16:08
S31	405851	"1" and (inverter converter)	US-PGPUB; USPAT	OR	OFF	2006/01/28 08:33
S32	1203	361/23	US-PGPUB; USPAT	OR	OFF	2006/01/28 08:33
S33	449	S32 and (inverter converter)	US-PGPUB; USPAT	OR	OFF	2006/01/28 08:33
S34	263	S33 and (contactor contactors switches)	US-PGPUB; USPAT	OR	OFF	2006/01/28 08:46
S35	630	motors same contactors	US-PGPUB; USPAT	OR	OFF	2006/01/28 09:12
S36	1308	inverters same motors	US-PGPUB; USPAT	OR	OFF	2006/01/28 09:19
S37	4	S36 same contactors	US-PGPUB; USPAT	OR	OFF	2006/01/28 09:21
S38	190	plurality same motors same inverters	US-PGPUB; USPAT	OR	OFF	2006/01/28 09:36
S39	12678	motors same (detect detecting detection)	US-PGPUB; USPAT	OR	OFF	2006/01/28 09:37
S40	495	S39 same (inverter converter)	US-PGPUB; USPAT	OR	OFF	2006/01/28 09:38
S41	128	S39 same (inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/28 09:46

## EAST Search History

S42	1	("5798729").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/28 09:46
S43	3	((("5797729") or ("6056510") or ("5265434"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/28 12:02
S44	715268	(control adj panel) microprocessor controller	US-PGPUB; USPAT	OR	OFF	2006/01/28 10:47
S45	158428	S44 same (contactor switch contactors switches)	US-PGPUB; USPAT	OR	OFF	2006/01/28 10:48
S46	26237	S45 same (motor motors)	US-PGPUB; USPAT	OR	OFF	2006/01/28 10:55
S47	2262	S46 same (converter inverter)	US-PGPUB; USPAT	OR	OFF	2006/01/28 10:48
S48	954	S46 same (inverter inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/28 11:21
S49	379	S48 same (ac dc)	US-PGPUB; USPAT	OR	OFF	2006/01/28 10:55
S50	28199	S45 same (motor motors loads)	US-PGPUB; USPAT	OR	OFF	2006/01/28 10:55
S51	1053	S50 same (inverter inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/28 10:55
S52	437	S51 same (ac dc)	US-PGPUB; USPAT	OR	OFF	2006/01/28 11:20
S53	156	S46 same (inverters)	US-PGPUB; USPAT	OR	OFF	2006/01/28 11:32
S54	2	((("6252751") or ("6023137"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/28 11:41
S55	296	(motors motor) same (remove isolate disconnect) same (fault fail failed faulty) same (switch switches contactor contactors trip breaker breakers)	US-PGPUB; USPAT	OR	OFF	2006/01/28 11:42
S56	1	("6804127").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/28 12:19
S57	1	("6252751").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/28 12:05
S58	13	("3790871"   "4106013"   "4289997"   "4511947"   "4669037"   "4812729"   "4829217"   "5040088"   "5113684"   "5136222"   "5177657"   "5589743").PN. OR ("6252751").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/28 12:05

## EAST Search History

S59	1	("6023137").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/28 12:19
S60	32	((("6579067") or ("6459606") or ("6459596") or ("6434960") or ("6408645") or ("6370888") or ("6325142") or ("6229722") or ("6185946") or ("6124697") or ("6031738") or ("6018957") or ("6008616") or ("5845509") or ("5528114") or ("5503248") or ("5509504") or ("5492273") or ("5446645") or ("5350992") or ("5488279") or ("5010287") or ("4958118") or ("4787211") or ("4546423") or ("4152902") or ("4151725") or ("4150425") or ("3909687") or ("3621365") or ("3390320")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/30 10:38
S61	4	((("6804127") or ("6023137") or ("6252751") or ("5797729")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 07:49
S62	0	231/23	US-PGPUB; USPAT	OR	OFF	2006/07/13 07:50
S63	1252	361/23	US-PGPUB; USPAT	OR	OFF	2006/07/13 07:50
S64	495	S63 and (inverter converter)	US-PGPUB; USPAT	OR	ON	2006/07/13 07:50
S65	27	S64 and (DC adj link)	US-PGPUB; USPAT	OR	ON	2006/07/13 07:50
S66	27	("20020176261"   "20030133317"   "20030168919"   "20030231518"   "20040008005"   "20040012986"   "20050190511"   "3621366"   "4697131"   "4761726"   "4864483"   "4959602"   "5038267"   "5483142"   "5570279"   "5625549"   "5757599"   "5889667"   "5909367"   "6163472"   "6407937"   "6507503"   "6566764"   "6603675"   "6625046"   "6657874"   "6704182").PN. OR ("7005829").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 07:58
S67	496681	(inverter converter)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/13 07:58
S68	1571	S67 and (dc adj link)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/13 07:59

## EAST Search History

S69	124106	S67 and (motors)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/13 07:59
S70	72489	S69 and (contactor switch switches)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/13 07:59
S71	943	S70 and (dc adj link)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/13 08:00
S72	34337	S70 and (ac dc)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/13 08:00
S73	943	S72 and (dc adj link)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/13 08:00
S74	16	("20020179376"   "3914674"   "4310785"   "4456097"   "5058710"   "5572108"   "5703456"   "5712456"   "5783928"   "5896948"   "6068078"   "6108223"   "6460658"   "6474447").PN. OR ("6742630").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 09:07
S75	12	("20010019227"   "20020096412"   "20020109406"   "5058710"   "5260637"   "5285029"   "5656915"   "5712456"   "5796175"   "5896948"   "6075331"   "6742630").PN. OR ("6938733"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 11:47
S76	1011	(inverter inverters) same (motors) same (switch switches contactor contactors)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 11:48
S77	709	(inverter inverters) same (motors) same (switch switches contactor contactors)	US-PGPUB; USPAT	OR	OFF	2006/07/13 12:11
S78	36	S77 and (variable adj speed adj drive)	US-PGPUB; USPAT	OR	OFF	2006/07/13 12:11
S79	9	("4896090"   "5629567"   "6028402"   "6152546"   "6194850"   "6208097"   "6499815"   "6507789"   "6600979").PN. OR ("6758087"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 12:39
S80	22	S77 and (compressor compressors) and (condenser condensers)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 14:23
S81	10011	(variable adj speed adj drive)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 14:24

## EAST Search History

S82	5622	(variable adj speed adj drive)	US-PGPUB; USPAT	OR	OFF	2006/07/13 14:24
S83	4	S82 and (converter) and (inverters) and (contactors) and (motors)	US-PGPUB; USPAT	OR	OFF	2006/07/13 14:46
S84	95	(converter) same (boost\$3) same (DC) same (DC adj link)	US-PGPUB; USPAT	OR	OFF	2006/07/13 14:49
S85	947	inverter and converter and (dc adj link)	US-PGPUB; USPAT	OR	OFF	2006/07/13 15:10
S86	333	S85 and (contactor\$1 switch\$2) and (motors)	US-PGPUB; USPAT	OR	OFF	2006/07/13 14:50
S87	637	S85 and (contactor\$1 switch\$2) and (motors motor)	US-PGPUB; USPAT	OR	OFF	2006/07/13 14:50
S88	633	S87 and (control\$3)	US-PGPUB; USPAT	OR	OFF	2006/07/13 14:50
S89	637	S87 and (AC DC)	US-PGPUB; USPAT	OR	OFF	2006/07/13 14:51
S90	166	inverter and (boost\$2 with converter) and (dc adj link)	US-PGPUB; USPAT	OR	OFF	2006/07/13 15:11
S91	44	inverter same (boost\$2 with converter) same (dc adj link)	US-PGPUB; USPAT	OR	OFF	2006/07/13 15:19
S92	2495	(boost boosted boosting) adj (converter)	US-PGPUB; USPAT	OR	ON	2006/07/13 15:20
S93	383	S92 and (inverters)	US-PGPUB; USPAT	OR	OFF	2006/07/13 15:20
S94	43	S93 and (DC adj link)	US-PGPUB; USPAT	OR	OFF	2006/07/13 15:24
S95	12	S94 and (contactor contactors switch switches) and (motors)	US-PGPUB; USPAT	OR	OFF	2006/07/13 15:21
S96	220	(inverters) same (motors) same (contactor contactors switches switches)	US-PGPUB; USPAT	OR	OFF	2006/07/13 15:25
S97	32	("3707659"   "4592323"   "4616166"   "4634887"   "4665319"   "4698761"   "4967334"   "5418437"   "5506484"   "5512811"   "5528445"   "5561602"   "5627758"   "5642270"   "5691625"   "5826563"   "5901683").PN. OR ("6023137").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 16:50
S98	2632	(boost boosted boosting) near converter	US-PGPUB; USPAT	OR	OFF	2006/07/13 16:59
S99	90	S98 and (inverters) and (motors) and (switch switches contactor\$1)	US-PGPUB; USPAT	OR	OFF	2006/07/13 16:54
S10 0	3	S97 and (DC adj link)	US-PGPUB; USPAT	OR	OFF	2006/07/13 16:59

## EAST Search History

S10 1	106	S98 and (DC adj link)	US-PGPUB; USPAT	OR	OFF	2006/07/13 17:00
S10 2	92	S101 and (inverter)	US-PGPUB; USPAT	OR	OFF	2006/07/13 17:00
S10 3	64	S102 and (motor motors)	US-PGPUB; USPAT	OR	OFF	2006/07/13 17:03
S10 4	1	("6023137").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/13 17:03
S10 5	5	inverters same contactors same motors	US-PGPUB; USPAT	OR	OFF	2006/07/14 07:37
S10 6	204	inverters and contactors and motors	US-PGPUB; USPAT	OR	OFF	2006/07/14 07:55
S10 7	245	(compressor\$1) and (inverter\$1) and (contactor\$1) and (motor\$1)	US-PGPUB; USPAT	OR	OFF	2006/07/14 08:37
S10 8	2	(motors) near (plurality) near (inverters)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:10
S10 9	207	(motors) same (plurality) same (inverters)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:18
S11 0	161	S109 and (contactor\$1 switch\$2)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:18
S11 1	58	S109 same (contactor\$1 switch\$2)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:20
S11 2	8	S109 same (contactor\$1 )	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:20
S11 3	32	("3707659"   "4592323"   "4616166"   "4634887"   "4665319"   "4698761"   "4967334"   "5418437"   "5506484"   "5512811"   "5528445"   "5561602"   "5627758"   "5642270"   "5691625"   "5826563"   "5901683").PN. OR ("6023137").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/22 12:26
S11 4	17	("4364004"   "4585982"   "4585983"   "5051680"   "5229700"   "5363039"   "5384527"   "5493195"   "5495162"   "5512811").PN. OR ("5691625").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/22 12:28
S11 5	31	("3866702"   "3890551"   "4075538"   "4093900"   "4444285"   "5057987"   "5170105"   "5208741"   "5245294"   "5323095"   "5331261"   "5436540"   "5480220"   "5629567"   "5646510"   "5691625"   "5721479"   "5929610").PN. OR ("5992950"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/22 12:37

## EAST Search History

S11 6	5888	318/254	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/22 12:37
S11 7	5886	318/254	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:37
S11 8	3100	318/254.ccls.	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:38
S11 9	14980	S118 amd (motors same inverters same contactors)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:38
S12 0	0	S118 and (motors same inverters same contactors)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:38
S12 1	12	S118 and (motor\$1 same inverter\$1 same contactor\$1)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:38
S12 2	5	(inverters) same (contactors) same (motors)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:42
S12 3	652	(contactors) same (motors)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:43
S12 4	48	S123 same (inverter\$1 converter\$1)	US-PGPUB; USPAT	OR	OFF	2006/07/22 12:43
S12 5	1838	(contactors) and (motors) and (control\$5)	US-PGPUB; USPAT	OR	OFF	2006/07/22 14:02
S12 6	414	(contactors) same (motors) same (control\$5)	US-PGPUB; USPAT	OR	OFF	2006/07/22 14:02
S12 7	8	("3566227"   "3628110"   "4420716"   "4426606").PN. OR ("5469031"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/07/22 14:13